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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,702	12/21/2001	Masaharu Nishimura	217720US3	6819
22850	7590	02/16/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			KIM, TAE JUN	
			ART UNIT	PAPER NUMBER
			3746	

DATE MAILED: 02/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/023,702

Applicant(s)

NISHIMURA ET AL.

Examiner

Ted Kim

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 6-11 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 and 5 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 6-15, 18 is/are rejected.
- 7) ☒ Claim(s) 16, 17, 19 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4, 12-15, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11-62549 in view of Neumann (4,411,616). JP '549 teaches a gas turbine combustor comprising a casing 2 configured to surround a combustor and to be disposed apart from the combustor to define an intake chamber between the combustor and casing; and a sheet-like vibration damper having at least one thin plate 15 which resonates with the vibration of the air in the intake chamber is attached to the inner wall of the casing by an attaching member 17. JP '549 does not teach the plate has a vacant space between. Neumann teaches a vibrating plate 7 with a vacant space between the plate and the wall 1 to absorb vibrational energy. Neumann specifically teaches that using a vibrating plate with a flexurally soft wall (col. 4, lines 2-10) as the inventive replacement for conventional vibration absorbers including walls with damping layers (col. 3, lines 56-62), such as disclosed by JP '549. It would have been obvious to one of ordinary skill in the art to employ a vibrating plate with an air space between, in order to provide for vibration damping of the casing. JP '549 does not teach the damper having a

plurality of thicknesses including at least 3 thicknesses. Neumann teaches the plate has a thickness of 1 to 3mm and the examiner asserts that such a teaching covers a constant thickness plate and a variable thickness plate within these dimensions. Furthermore, it is noted that many plates have a variable thickness as a matter of manufacturing tolerances. It would have been obvious to one of ordinary skill in the art to employ a plurality of thicknesses, including at least 3 thicknesses, in order to employ a variable thickness plates and/or in order to accommodate manufacturer tolerances. Furthermore, the use of a plurality of plates is considered within the ordinary skill in the art as an obvious use of plural parts for multiplied effect and/or to more easily cover a non-flat surface. It would have been obvious to one of ordinary skill in the art to employ a plurality of plates as an obvious use of plural parts for multiplied effect and/or to more easily cover a non-flat surface. JP '549 also teaches a plurality of plates 15 that at least partially overlap.

3. Claims 1, 2, 4, 12, 13, 15, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cowan et al (4,199,936) in view of Neumann (4,411,616). Cowan et al teach a gas turbine combustor comprising a casing 22 configured to surround a combustor 21 and to be disposed apart from the combustor to define an intake chamber between the combustor and casing; and a sheet-like acoustic/vibration damper. Cowan et al do not teach at least one thin plate which resonates with the vibration of the air in the intake chamber is attached to the inner wall of the casing by an attaching member.

Neumann teaches a vibrating plate 7 with a vacant space between the plate and the wall 1 to absorb vibrational energy. Neumann specifically teaches that using a vibrating plate

with a flexurally soft wall (col. 4, lines 2-10) as the inventive replacement for conventional vibration/noise absorbers. It would have been obvious to one of ordinary skill in the art to employ a vibrating plate with a vacant space between, in order to provide for vibration damping of the casing, in a region that Cowan et al teach requires vibration/acoustic dampening. Note that either the region upstream of the chambers 44 of Cowan et al is contemplated as modifiable. Cowan et al does not teach the damper having a plurality of thicknesses including at least 3 thicknesses. Neumann teaches the plate has a thickness of 1 to 3mm and the examiner asserts that such a teaching covers a constant thickness plate and a variable thickness plate within these dimensions. Furthermore, it is noted that many plates have a variable thickness as a matter of manufacturing tolerances. It would have been obvious to one of ordinary skill in the art to employ a plurality of thicknesses, including at least 3 thicknesses, in order to employ a variable thickness plates and/or in order to accommodate manufacturer tolerances. Furthermore, the use of a plurality of plates is considered within the ordinary skill in the art as an obvious use of plural parts for multiplied effect and/or to more easily cover a non-flat surface. It would have been obvious to one of ordinary skill in the art to employ a plurality of plates as an obvious use of plural parts for multiplied effect and/or to more easily cover a non-flat surface.

*Allowable Subject Matter*

4. Claims 3, 5 are allowed.

5. Claims 16, 17, 19, 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

6. Applicant's arguments filed 12/13/04 have been fully considered but they are not persuasive. Applicant argues that the vibration of the air does not occur in Umemura. However, in the specification of the application, applicant has already admitted that Umemura (JP 11-62549) teaches an acoustic material to restrict the air-vibration-amplifying operation (see page 2, lines 5+ of the instant specification). Clearly then Umemura is located in the claimed location to restrict the air-vibration and reduce the noise. Neumann specifically teaches that using a vibrating plate with a flexurally soft wall (col. 4, lines 2-10) as the inventive replacement for conventional vibration absorbers including walls with damping layers (col. 3, lines 56-62), such as disclosed by JP '549. In combination with JP '549, the air chamber will be modified to accommodate vibration and restrict the air-vibration-amplifying operation. The walls of Neumann damp the vibration of the surrounding gas and in combination with JP '549 would damp the air-vibration as Neumann specifically teaches damping of the noise/vibration at the desired tuning frequency (e.g. col. 5, lines 41-43).

7. Applicant argues that Cowan and Neumann does not teach the invention for the same reasons previously set forth against JP '549 and Neumann. However, Neumann

specifically teaches that using a vibrating plate with a flexurally soft wall (col. 4, lines 2-10) as the inventive replacement for conventional vibration/noise absorbers, of which Cowan uses a conventional resonator type. The walls of Neumann damp the vibration of the surrounding gas and in combination with Cowan would damp the air-vibration of the air in the intake chamber as Neumann specifically teaches damping of the noise/vibration at the desired tuning frequency (e.g. col. 5, lines 41-43).

8. Applicant's amendment necessitated any new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

***Contact Information***


Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Ted Kim whose telephone number is 571-272-4829. The Examiner can be reached on regular business hours before 5:00 pm, Monday to Thursday and every other Friday.

The fax numbers for the organization where this application is assigned are 703-872-9306 for Regular faxes and 703-872-9306 for After Final faxes.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler, can be reached on 571-272-4834.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist of Technology Center 3700, whose telephone number is 703-308-0861. General inquiries can also be directed to the Patents Assistance Center whose telephone number is 800-786-9199. Furthermore, a variety of online resources are available at <http://www.uspto.gov/main/patents.htm>

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